DESCRIPTION
AMCOM's AM324033PA-P2 is a Power Amplifier module. It is designed for general purpose applications. It operates from 3200 MHz to 4000 MHz. The module operates using a 12V supply and uses SMA connectors for input and output.

FEATURES
- Frequency Range: 3200-4000 MHz
- Gain: 23dB
- Pout: +33dBm
- IP3: +42dBm
- Noise Figure: 7.5dB
- Efficiency: 30%
- DC Power: 12V
- SMA Connector

Performance tested at 3600MHz

APPLICATIONS
- Wireless Infrastructure
- Military & Aerospace
- Test and Measurement

Electrical Specifications @ +25 °C, $Z_S = Z_L = 50 \, \Omega$, $V_{\text{SUPPLY}} = +12V$

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>MHz</td>
<td>3200</td>
<td>3200</td>
<td>4000</td>
</tr>
<tr>
<td>Small Signal Gain</td>
<td>dB</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output Power $P_{1dB} @ P_{in} = +10dBm$</td>
<td>dBm</td>
<td></td>
<td>+33</td>
<td></td>
</tr>
<tr>
<td>Channel Output Power $P_{out}$ (OFDM QAM-64, 54Mb/s, EVM&lt;2.5%)</td>
<td>dBm</td>
<td></td>
<td>+25</td>
<td></td>
</tr>
<tr>
<td>IP3</td>
<td>dBm</td>
<td></td>
<td>+42</td>
<td></td>
</tr>
<tr>
<td>Reverse Isolation</td>
<td>dB</td>
<td>-40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noise Figure</td>
<td>dB</td>
<td>7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Efficiency at Pout = +33dBm</td>
<td>%</td>
<td></td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>VSWR Input/Output</td>
<td></td>
<td>1.8:1/1.3:1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC Power Supply</td>
<td>V</td>
<td>9</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Quiescent Current with No Input</td>
<td>mA</td>
<td></td>
<td>650</td>
<td></td>
</tr>
<tr>
<td>Supply Current at $P_{out} = +33dBm$</td>
<td>mA</td>
<td></td>
<td>1300</td>
<td></td>
</tr>
<tr>
<td>Size (Excluding SMA Connector)</td>
<td>inch</td>
<td>3.750&quot; x 2.000&quot; x 1.813&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>Oz.</td>
<td></td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>
Typical Performance @ +25°C

**Small Signal Gain S21**

![Small Signal Gain S21](image)

**P1dB**

![P1dB](image)

**Boardband Gain S21**

![Boardband Gain S21](image)

**Psat @ Pin = +13dBm**

![Psat @ Pin = +13dBm](image)

**Isolation S12**

![Isolation S12](image)

**OFMD,QAM-64,54Mb/s @ 3.6GHz**

![OFMD,QAM-64,54Mb/s @ 3.6GHz](image)
Typical Performance @ +25°C

**OFMD, QAM-64, 54Mb/s @ 3.6GHz**

- **Gain (dB)**
  - 25 to 20
- **Output Power (dBm)**
  - 22 to 34

**Pout, Icc v.s. Pin @ 3.2GHz**

- **Pout (dBm)**
  - 20 to 35
- **Input Power (dBm)**
  - -7 to 13
- **Current (mA)**
  - 650 to 1900

**Input VSWR S11**

- **S11 VSWR**
  - 1 to 3
- **Frequency (GHz)**
  - 3.2 to 4

**Pout, Icc v.s. Pin @ 3.4GHz**

- **Pout (dBm)**
  - 20 to 35
- **Input Power (dBm)**
  - -7 to 13
- **Current (mA)**
  - 650 to 1900

**Output VSWR S22**

- **S22 VSWR**
  - 1 to 3
- **Frequency (GHz)**
  - 3.2 to 4

**Pout, Icc v.s. Pin @ 3.6GHz**

- **Pout (dBm)**
  - 20 to 35
- **Input Power (dBm)**
  - -7 to 13
- **Current (mA)**
  - 650 to 1900
Typical Performance @ +25°C

- **Pout, Icc v.s. Pin @ 3.8GHz**
  - Pout vs. Input Power (dBm)
  - Current vs. Input Power (dBm)

- **Pout, Eff v.s. Pin @ 3.2GHz**
  - Pout vs. Input Power (dBm)
  - Efficiency vs. Input Power (dBm)

- **Pout, Icc v.s. Pin @ 4.0GHz**
  - Pout vs. Input Power (dBm)
  - Current vs. Input Power (dBm)

- **Pout, Eff v.s. Pin @ 3.6GHz**
  - Pout vs. Input Power (dBm)
  - Efficiency vs. Input Power (dBm)

- **Pout, Eff v.s. Pin @ 4.0GHz**
  - Pout vs. Input Power (dBm)
  - Efficiency vs. Input Power (dBm)
Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Absolute Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Input Power</td>
<td>+17 dBm</td>
</tr>
<tr>
<td>Supply Voltage</td>
<td>+16V</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-30 °C to +65 °C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-55 °C to +100 °C</td>
</tr>
</tbody>
</table>

Outline

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inch</td>
<td>3.750</td>
<td>2.000</td>
<td>1.750</td>
<td>3.400</td>
<td>1.000</td>
<td>0.400</td>
<td>1.813</td>
<td>0.375</td>
<td>1.000</td>
</tr>
<tr>
<td>mm</td>
<td>92.25</td>
<td>50.80</td>
<td>44.45</td>
<td>86.36</td>
<td>25.40</td>
<td>10.16</td>
<td>46.05</td>
<td>9.53</td>
<td>25.40</td>
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